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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,451	09/26/2005	Tomoyuki Yagi	03500.018083.	4631

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NEW YORK, NY 10112

EXAMINER

BOOSALIS, FANI POLYZOS

ART UNIT	PAPER NUMBER
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2884

MAIL DATE	DELIVERY MODE
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09/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/550,451	YAGI, TOMOYUKI	
	Examiner	Art Unit	
	Faye Boosalis	2884	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3-12 and 15-17 is/are allowed.
- 6) ☒ Claim(s) 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/30/07</u> . | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments, see pages 9-13, filed 17 July 2007, with respect to claims 1-15 have been fully considered and are persuasive. The rejections of claims 1-15 have been withdrawn.

Response to Amendment

2. Claims 2 and 13-14 are cancelled and therefore overcome the rejection under 35 U.S.C. 101 and 112.

3. The amendment to claims has been entered.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al (US 5,869,837 A).

Regarding claim 18, Huang discloses a photoelectric conversion device, comprising: a plurality of pixels (4) each having, as one unit, photoelectric conversion means (capacitive coupling radiation detector) (CCD) (4) (See Fig. 2) for converting light into an electric signal to accumulate (i.e. storage capacitor) therein electric charges (See Abstract), and transfer means (read-out switch) (1) for transferring the electric charges accumulated in the photoelectric conversion means, the plurality of pixels (4) being disposed in matrix (See Fig. 3); and vertical scan unit (equivalent to control signal

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means) supplying a control signal to control lines (7) for controlling an operation for transferring the electrical signal obtained through the photoelectric conversion means, wherein the electric charges accumulated in the photoelectric conversion means (4) (equivalent to the sweeping means) sweep out charges accumulated in the radiation detector (4), using the capacitor (2) formed between the radiation detector and the control lines through a control line (7) for the transfer means of the pixels disposed along a line adjacent to the photoelectric conversion means (see for example Huang et al -- SU 5,869,837 A -- Figs. 2-3 and col. 3, lines 4-25), and wherein the control line (7), and voltage change of the control lines when performing a reading operation (see for example Huang et al -- US 5,869,837 A -- col. 3, lines 4-col. 4, line 62).

Allowable Subject Matter

6. Claims 1, 3-12 and 15-17 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding independent claims 1, 12, 15 and 17, the prior art does not disclose or fairly suggest a photoelectric conversion device, method for controlling a photoelectric conversion device or a computer program for computer control of a photoelectric conversion device, wherein executing a sweeping processing using a capacitor arranged between the second electrode of the photoelectric conversion means and the control line for transfer means of the pixels disposed along the line adjacent to the photoelectric conversion means, to sweep out the electric charges accumulated in the photoelectric conversion means.

The examiner notes that while it is known in the art means for controlling a photoelectric conversion device comprising: a plurality of pixels (4) each having, as one unit (see for example Huang et al -- SU 5,869,837 A -- Fig. 2), photoelectric conversion means (capacitive coupling radiation detector) (CCD) (4) for converting light into electric signal to accumulate (i.e. storage capacitor) therein electric charges (See Abstract), and transfer means (read-out switch) (1) for transferring the electric charges accumulated in the photoelectric conversion means, the plurality of pixels (4) being disposed in matrix (See Fig. 3); and means for sweeping out (outputting) the electric charges accumulated in the photoelectric conversion means (4) through a control line (7) for the transfer means of the pixels disposed along a line adjacent to the photoelectric conversion means (see for example Huang et al -- SU 5,869,837 A -- Figs. 2-3 and col. 3, lines 4-25), wherein the control line (7) (equivalent to the sweeping means) sweep out charges accumulated in the radiation detector (4), using the capacitor (2) formed between the radiation detector and the control lines, and voltage change of the control lines when performing reading operation (see for example Huang et al -- SU 5,869,837 A -- col. 3, lines 4-col. 4, line 62), the prior art does not suggest the capacitor, arranged between the second electrode of the photoelectric conversion means and the control line for transfer means of the pixels disposed along the line adjacent to the photoelectric conversion means, to sweep out the electric charges accumulated in the photoelectric conversion means.

The remaining claims 3-11 and 16 are allowable based on their dependency.

Conclusion

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faye Boosalis whose telephone number is 571-272-2447. The examiner can normally be reached on Monday thru Friday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FB

/Christine Sung/
Primary Examiner, Art Unit 2884